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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,217	05/25/2001	Satoshi Okada	0717-0468P	2724
2292	7590	05/25/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			RAHMJOO, MANUCHER	
			ART UNIT	PAPER NUMBER
			2676	11

DATE MAILED: 05/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/864,217

Applicant(s)

OKADA ET AL.

Examiner

Mike Rahmjoo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 11, 13 and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11, 13 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1- 8, 11,13, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1 line 12 on page 118 recites"...assigns each of bits...". It is not clear which bits are "each of bits".

As per claim 1 line 16 on page 118 recites"...bits located in the vicinity of the bit...". It is not clear what is meant by "bits located in the vicinity of the bit". Is it the neighboring bits of the grouping of the bits?

As per claim 1 line 19 on page 118 recites"...a basic portion of...". It is not clear what "a basic portion" is and how a portion of any graphics can make up a basic portion.

As per claim 1 line 16 on page 118 recites"...continuity of bits...". It is not clear how bits can assume the property of "continuity".

As per claim 4 line 9 on page 119 recites"...one of at least one color element...". It is not clear what is meant by "one color element". Is it a color component of a pixel such as red, green, or blue of a pixel sub- component?

As per claim 4 line 12 on page 119 recites"...stepwise through...". Is stepwise the same as successive order such as in RGB per pixel or different?

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Claim 1 recites the limitation "...the bit map data..." in line 13 on page 118. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "...to the one..." in line 17 on page 118. There is insufficient antecedent basis for this limitation in the claim.

Claims 11,13, and 17 have similar rejections.

Further clarification of the above and other possible claims I respectfully requested.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1- 8, 11,13, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Lui et al (US Patent 6,396,505),hereinafter, Lui.

As per claims 1, 11, and 17 Lui teaches a display device including a plurality of sub- pixels in pixel groupings see for example figures 6-7 and column 9 lines 52- 58; and a control section for controlling the display device see for example column 7 lines 25- 32, wherein the plurality of

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sub-pixels form a plurality of groups, each of the plurality of groups includes a predetermined plural number of sub-pixels (RGB pixel sub- component) see for example column 7 lines 21- 25 and column 9 lines 52- 58;and Lui inherently teaches the control section assigns each of bits included in the bit map data to one of the plurality of groups (see for example figure 6 wherein separate image samples represented by grid 620 are used to generate the red, green and blue intensity values corresponding to bitmap image 630) and displays the graphic by controlling sub-pixels included in the one of the plurality of groups based on information about bits located in the vicinity of the bit assigned to the one of the plurality of groups see for example figures 7a- b, the abstract, claim 19 and also column 15 lines 8- 20 (generation of RGB intensity values associated with corresponding portions of the bitmap image based on distance).

As per claim 2 Lui teaches the control section defines a basic portion of the graphic to be displayed on the display device based on the information about the bits located in the vicinity of the bit assigned to the one of the plurality of groups (generation of pixel sub- components red, green, and blue intensity values associated with corresponding portions of the bitmap image based on distance) see for example column 15 lines 8- 20 and column 16 lines 21- 28(sub- pixels controlled by same size portion corresponding to a basic portion of the graphic).

As per claim 3 Lui teaches the control section controls the sub-pixels included in the one of the plurality of groups based on information about continuity of the bits located in the vicinity of the bit corresponding to the one of the plurality of groups (generation of RGB intensity values associated with corresponding portions of the bitmap image based on distance in successive rows and columns of pixels) see for example column 15 lines 8- 20 and figure 6.

As per claims 4 and 13 Lui teaches one of at least one color element is pre-assigned to each of the plurality of sub-pixels, and the intensity of each of the at least one color element is represented

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stepwise through a plurality of color element levels; each of the plurality of sub-pixels has one of the plurality of color element levels see for example see for figure 6 and the color components red, green, and blue in row and column order; and reading from a storage device (storage devices of figure 5) basic portion of data which defines a basic portion of the character (figures 10- 14) on a sub- pixel by sub- pixel basis see for example the abstract, claim 19 and also column 15 lines 8- 20; and the control section sets a color element level of at least one particular sub-pixel corresponding to a basic portion of the graphic to be displayed on the display device to a maximum or semi-maximum color element level, and sets a color element level of at least one sub-pixel adjacent to the at least one particular sub-pixel corresponding to the basic portion of the graphic to a color element level different from the maximum or semi-maximum color element level (mapping portions of the scaled hinted image into corresponding pixel sub- components to form a bitmap image also performed for gray scaled sub- pixels with intensity values between 0- 255 and 128 respectively corresponding to minimum, maximum and semi- maximum intensity levels) see for example column 18 lines 1- 23.

As per claim 5 Lui teaches the control section adjusts a width of a line of the graphic to be displayed on the display device by controlling the number of sub-pixels corresponding to the basic portion of the graphic see for example column 10 lines 4- 8.

As per claim 6 Lui teaches the control section adjusts a width of a line of the graphic to be displayed on the display device by controlling the color element level of a sub-pixel adjacent to the at least one particular sub-pixel corresponding to the basic portion of the graphic see for example column 10 lines 35- 40 wherein information on scaling (as per column 10 lines 4- 8) is applied during rendering and or color information.

As per claim 7 Lui teaches each of the plurality of sub-pixels is controlled by converting the color element level to a brightness level according to a predetermined table see for example column 30 lines 4- 11; and the control section generates the predetermined table according to a characteristic

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of the display device see for example column 29 lines 65- 67 and column 30 lines 1- 4.

As per claim 8 Lui teaches the control section (operating system 535 of figure 5) compares a characteristic of a reference display device and the characteristic of the display device to generate the predetermined table according to a difference in the characteristics see for example column 29 lines 6- 67 and column 30 lines 1- 10 wherein look up table 539 is accessed as a reference to generate a processed set of values corresponding to a predetermined table.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure; US Patents 5,873,022, 5,329,599, 6,118,452, 5,278,950, 6,535,221, and 5,572,638.

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### **Inquiry**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Rahmjoo whose telephone number is (703) 305- 5658. The examiner can normally be reached on 6:30- 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (703) 308- 6829. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872- 9314 for regular communications and (703) 872- 9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305- 4750.

Mike Rahmjoo

May 20, 2004



**MATTHEW C. BELLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600**



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